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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/990,125	11/21/2001	Rikio Yoshikawa	34175	2793

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EXAMINER

NGUYEN, HANH N

ART UNIT PAPER NUMBER

2834

DATE MAILED: 04/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/990,125

Applicant(s)

YOSHIKAWA ET AL.

Examiner

HANH NGUYEN

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-7 is/are rejected.
- 7) ☒ Claim(s) 4 and 8-10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The abstract is objected to because of the following informalities: "rising portion", there is a double spacing between the two words.

Appropriate correction is required.

Claim Objections

2. Claim 4 is objected to because of the following informalities: "and said annular portion of said stator core" in line 9 should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 3,5 are rejected under 35 U.S.C. 112, second paragraph, failing to provide antecedent basis for the limitations of the claims.

Regarding claim 3, there is insufficient antecedent basis for "said inner peripheral portion", "said rising portion core support" and "said core support". Under the light of the specification, the Examiner interprets "said inner peripheral portion" as the inner peripheral portion of the mounting plate; "said rising portion core support" and "said core support" as a part of a rising portion which is parallel to the mounting plate.

Regarding claim 5, there is insufficient antecedent basis for "said rising portion core support" and "said core support". Under the light of the specification, the Examiner

interprets "said rising portion core support" and "said core support" as a part of a rising portion which is parallel to the mounting plate.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art in view of Yukio

Regarding claim 1, the applicant's admitted prior art shows an outer rotor type brushless motor comprising an outer rotor having permanent magnets fixed onto an inner periphery of a cup-like rotor yoke, a stator including a stator core having a plural of magnetic pole portions protruded on an outer periphery of an annular portion of said stator core and faced to said permanent magnets and coils wound on said magnetic pole portions, respectively, a cylindrical boss disposed on an inner periphery of said annular portion of said stator core, a rotational shaft extending along an axis of said boss and rotationally supported on said boss by a bearing with leading end of said shaft having a center portion of said rotor yoke fixed thereto and a mounting plate fixed onto an outer periphery of said boss (Page 1 in the specification and Fig. 12) except showing said boss being formed of resin mold and extending through a hole in said mounting plate and fixed thereto and said annular portion of said stator core being fixed to a rising portion of the inner periphery of said mounting plate.

However, Yukio discloses an electric motor wherein said boss (3 in Fig. 1) being formed of resin mold and extending through a hole in said mounting plate and fixed thereto and said annular portion of said stator core being fixed to a rising portion of the inner periphery of said mounting plate for the purpose of improving heat radiation efficiency.

Since the applicant's admitted prior art and Yukio are in the same field of endeavor, the purpose disclosed by Yukio would have been recognized in the pertinent art of the applicant's admitted prior art.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify the applicant's admitted prior art by forming a rising portion of the inner periphery of said mounting plate, and said stator core being fixed to a rising portion of the inner periphery of said mounting plate as taught by Yukio for the purpose of improving heat radiation efficiency

Regarding claim 2, the motor disclosed by the applicant's admitted prior art, modified by Yukio show all limitations of the claimed invention except showing an inner peripheral portion provided at the top of said rising portion in parallel to said mounting plate being integrally inserted into said boss so as to be fixed thereto when said boss is molded, as the result, the boss is secured firmly by the mounting plate. The motor disclosed by Yukio has the boss (stator supporting member 3 in Fig. 1) molded from synthetic resin is secured to the center hole of the mounting plate by press-fitting process (abstract).

The process of press-fitting the boss to the mounting plate or integrally inserting mounting plate to the boss will come up with the same result: the boss is secured firmly by the mounting plate.

"Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production." In re Thorpe, 227 USPQ 964,966 (Fed. Cir. 1985).

"The Patent Office bears a lesser burden of proof in making out a case of prima facie obviousness for product-by-process claims because of their peculiar nature" then when a product is claimed in the conventional fashion. In re Fessmann, 180 USPQ 324, 326 (CCPA 1974). Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by different process, the burden shifts to the applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. In re Masori USPQ 289,292 (Fed. Cir. 1983)

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art in view of Rikio and further in view of Yukio

Regarding claim 6, the applicant's admitted prior art shows all the limitations of the claimed invention except showing an electric motor wherein a mounting plate fixed onto an outer periphery of said boss, said boss being formed of resin mold, said annular portion of said stator core being inserted into an outer periphery of said boss so as to be

fixed thereto when said boss is molded and said annular portion of said stator core being fixed to a rising portion provided on the inner periphery of said mounting plate.

However, Rikio discloses an electric motor wherein a mounting plate (13) fixed onto an outer periphery of said boss (10 in Fig. 4), said annular portion of said stator core being inserted into an outer periphery of said boss so as to be fixed thereto when said boss is molded (inherent from drawing) and said annular portion of said stator core being fixed to a rising portion (by means of boss 10) provided on the inner periphery of said mounting plate for the purpose of holding the stator core firmly.

Moreover, Yukio discloses an electric motor wherein the boss is molded from synthetic resin for the purpose of holding the stator core.

Since the applicant's admitted prior art, Rikio and Yukio are in the same field of endeavor, the purpose disclosed by Rikio and Yukio would have been recognized in the pertinent art of the applicant's admitted prior art.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify the applicant's admitted prior art by forming an electric motor wherein a mounting plate fixed onto an outer periphery of said boss, said boss being formed of resin mold, said annular portion of said stator core being inserted into an outer periphery of said boss so as to be fixed thereto when said boss is molded and said annular portion of said stator core being fixed to a rising portion provided on the inner periphery of said mounting plate as taught by Yukio and Rikio for the purpose of holding the stator core.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art in view of Yukio and further in view of Suzuki et al.

Regarding claim 7, the motor disclosed by the applicant's admitted prior art, modified by Yukio shows all the limitations of the claimed invention except showing an electric motor wherein the insulation layers of the stator core is formed of resin mold.

However, Suzuki et al. disclose an electric motor wherein the insulation layers (130 in Fig. 2 and Col. 2, lines 65-67) being formed of resin mold for the purpose of preventing short-circuit.

Since the applicant's admitted prior art, Yukio and Suzuki et al. are in the same field of endeavor, the purpose disclosed by Suzuki et al. would have been recognized in the pertinent art of the applicant's admitted prior art and Yukio.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify the applicant's admitted prior art and Yukio by using coil insulation layers being formed of resin mold for the purpose of preventing short-circuit.

Allowable Subject Matter

7. Claim 4 is objected to because of informalities but would be allowable if appropriate correction is made.

8. Claims 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 3,5 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

10. The following is a statement of reasons for the indication of allowable subject matter: the record of prior art does not show an outer rotor type motor, wherein a plural of rising portions being intermittently provided on the inner peripheral portion of the mounting plate and a core support portion parallel to the mounting plate is being formed from the rising portions, the boss is provided with a flange to be mounted by the rising portion of the inner peripheral of the mounting plate, the coil insulation layers are molded integrally with the boss at the same time; a plural of radial slots are provided on the top of the rising portion of the mounting plate and the stator core is supported by the ribs of the boss at said slots or the stator core is core is supported by the ribs of the boss between adjacent rising portions.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh N Nguyen whose telephone number is (703) 305-3466. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3431 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

HNN

April 15, 2002



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